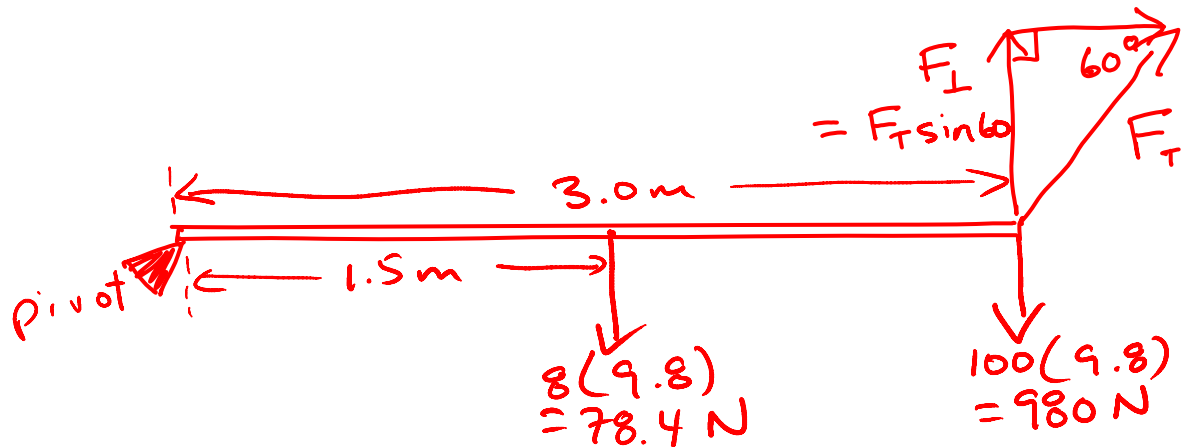
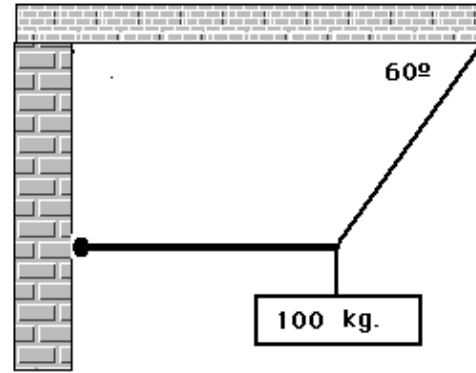


Example #13. A 8.00 kg uniform beam of length 3.00 m is attached to a wall by a hinge and is supported from the ceiling by a rope which makes an angle of 60° with the horizontal, as shown below. Calculate the tension in the rope that supports the beam.



$$\tau_{cw} = \tau_{ccw}$$

$$78.4(1.5) + 980(3) = \overbrace{F_T \sin 60}^{F_\perp}(3)$$

$$F_T = 1.18 \times 10^3 \text{ N}$$